

**What is claimed is:**

1. A burner for a heat generator, comprising a swirl generator (1) for a combustion-air flow and means for injecting fuel for producing a main flow (6), and a combustion chamber (2) arranged downstream, characterized in that a cavity (3) is arranged between the swirl generator (1) and the combustion chamber (2), in which cavity (3) a secondary flow (10) can be produced, and this secondary flow (10) encloses the main flow (6).
2. The burner as claimed in claim 1, characterized in that the cavity (3) has an annular toroidal shape.
3. The burner as claimed in claim 1 or 2, characterized in that injection means for fuel (4) and for combustion air (5) are arranged in the cavity (3).
4. The burner as claimed in claim 1, 2 or 3, characterized in that a mixing section (7) is arranged between the swirl generator (1) and the cavity (3).
5. The burner as claimed in one of claims 1 to 4, characterized in that a mixing section (7) is arranged between the cavity (3) and the combustion chamber (2).
6. The burner as claimed in one of claims 1 to 5, characterized in that the secondary flow (10) can be used as pilot flame.
7. A pilot burner for the burner of a heat generator, the burner comprising a swirl generator (1) for a combustion-air flow and means for injecting fuel for producing a main flow (6), and a combustion chamber (2) being arranged downstream of the burner, characterized

in that the pilot burner is configured as a cavity (3) which is arranged between the swirl generator (1) and the combustion chamber (3) and in which a secondary flow (10) can be produced.

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8. The pilot burner as claimed in claim 7, characterized in that the cavity (3) has an annular toroidal shape.

10 9. The pilot burner as claimed in claim 7 or 8, characterized in that injection means for fuel (4) and for combustion air (5) are arranged in the cavity (3).